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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,857	09/26/2001	Michael D. Ruehle	42390P11973	1608

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EXAMINER

PYZOCHA, MICHAEL J

ART UNIT PAPER NUMBER

2137

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/963,857	Applicant(s) RUEHLE, MICHAEL D.	
	Examiner Michael Pyzocha	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-11,15-19 and 22 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1,6-11,15-19 and 22 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1, 6-11, 15-19, and 22 are pending.
2. Amendment filed 03/15/2006 has been received and considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 6, 8-11, 15, 17-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeBellis et al (US 6044388) in view of IBM Technical Disclosure (hereinafter IBM).

As per claims 1, 10, 19, and 22 DeBellis et al discloses a hash circuit to receive first and second input values for a current hash stage and to generate an output value from the current hash stage based on the first and second input values (see column 7 lines 8-16); a numerical sequencer coupled to the hash circuit to generate a sequence of numbers during the current hash stage and to provide at least a portion of a current one of the sequence of numbers as the first input value

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for a subsequent hash stage (see column 6 lines 58-67); a feedback circuit coupled to the hash circuit to provide at least a portion of the output value as the second input value for the subsequent hash stage; and a control circuit coupled to the numerical sequencer to stop generating the sequence of numbers upon an occurrence of receipt of a request for a pseudo-random number (see DeBellis et al column 7 lines 8-40) and to resume generating the sequence of numbers upon an occurrence of a part of the subsequent hash stage and the part is the beginning (see DeBellis et al column 7 lines 8-40) and the hash circuit continues to operate while the sequencer is stopped (see column 6 lines 58-67 and column 7 lines 8-32).

DeBellis et al fails to disclose resuming from a value at which the numerical sequencer stopped.

However, IBM teaches resuming from a value at which the numerical sequencer stopped based on an event (see bottom of page 2).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to start the sequencer from the value it left off.

Motivation to do so would have been to create numbers that are pseudorandom rather than non-repeating (see page 3)

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As per claim 11, the modified DeBellis et al and IBM system discloses the hash circuit is to receive the first and second input values at a beginning of the current hash stage (see DeBellis et al column 7 lines 8-16).

As per claims 6 and 15, the modified DeBellis et al and IBM system discloses the numerical sequencer includes a counter (see column DeBellis et al 6 lines 58-67 and IBM page 2).

As per claims 8-9 and 17-18, the modified DeBellis et al and IBM system discloses said at least a portion of the current one of the sequence of numbers includes predetermined bits of the current one of the sequence of numbers and said at least a portion of the output value includes predetermined bits of the output value (see DeBellis et al column 7 lines 8-40 where the portion is the whole part).

5. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified DeBellis et al and IBM system as applied to claims 1 and 10 above, and further in view of Koopman, Jr. (US 5696828).

As per claims 7 and 16, the modified DeBellis et al and IBM system fails to disclose the numerical sequencer includes a linear feedback shift register.

However, Koopman, Jr. teaches a linear feedback shift register (see column 3 lines 5-22).

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At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Koopman, Jr.'s LFSR in the pseudorandom number generator of the modified DeBellis et al and IBM system.

Motivation to do so would have been that a sixty-four (64) bit maximal length LFSR running at a clocked frequency of 1 MHz could be sampled every few seconds to approximate a random number stream and be guaranteed not repeat to itself for 585,000 years (see Koopman, Jr. column 3 lines 5-22).

Response to Arguments

6. Applicant's arguments filed 03/15/2006 have been fully considered but they are not persuasive. Applicant argues that a counter is not a sequencer and there is no motivation to combine DeBellis et al and IBM.

With respect to Applicant's argument that a counter is not a sequencer, MPEP section 2111.01 states:

The specification should also be relied on for more than just explicit lexicography or clear disavowal of claim scope to determine the meaning of a claim term when applicant acts as his or her own lexicographer; the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in context in the specification. See *Phillips v. AWH Corp.*, ___F.3d___, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc).

Applicant's specification states that the sequencer may be a counter (see paragraph 0013 and the abstract). Therefore

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Applicant's argument that a counter is not a sequencer is not persuasive.

7. With respect to Applicant's argument that there is no motivation to combine DeBellis et al and IBM, each of the references teach methods for creating pseudo-random numbers and IBM teaches that its method is advantageous for five reasons one of which is because it produces numbers that are not repeating. At the time of the invention one of ordinary skill in the art would have been motivated to use the teachings of IBM's pseudo-random number generator in the pseudo-random number generator of DeBellis et al because of the advantages IBM teaches. Applicant also argues Examiner uses hindsight, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Saarinen (US 7007050) teaches a pseudorandom number generator using feedback and hashing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be

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reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER